Developmental Testing: Industry/Government Roundtable – Perspectives on Transforming DT and OT

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Bottom Line Upfront

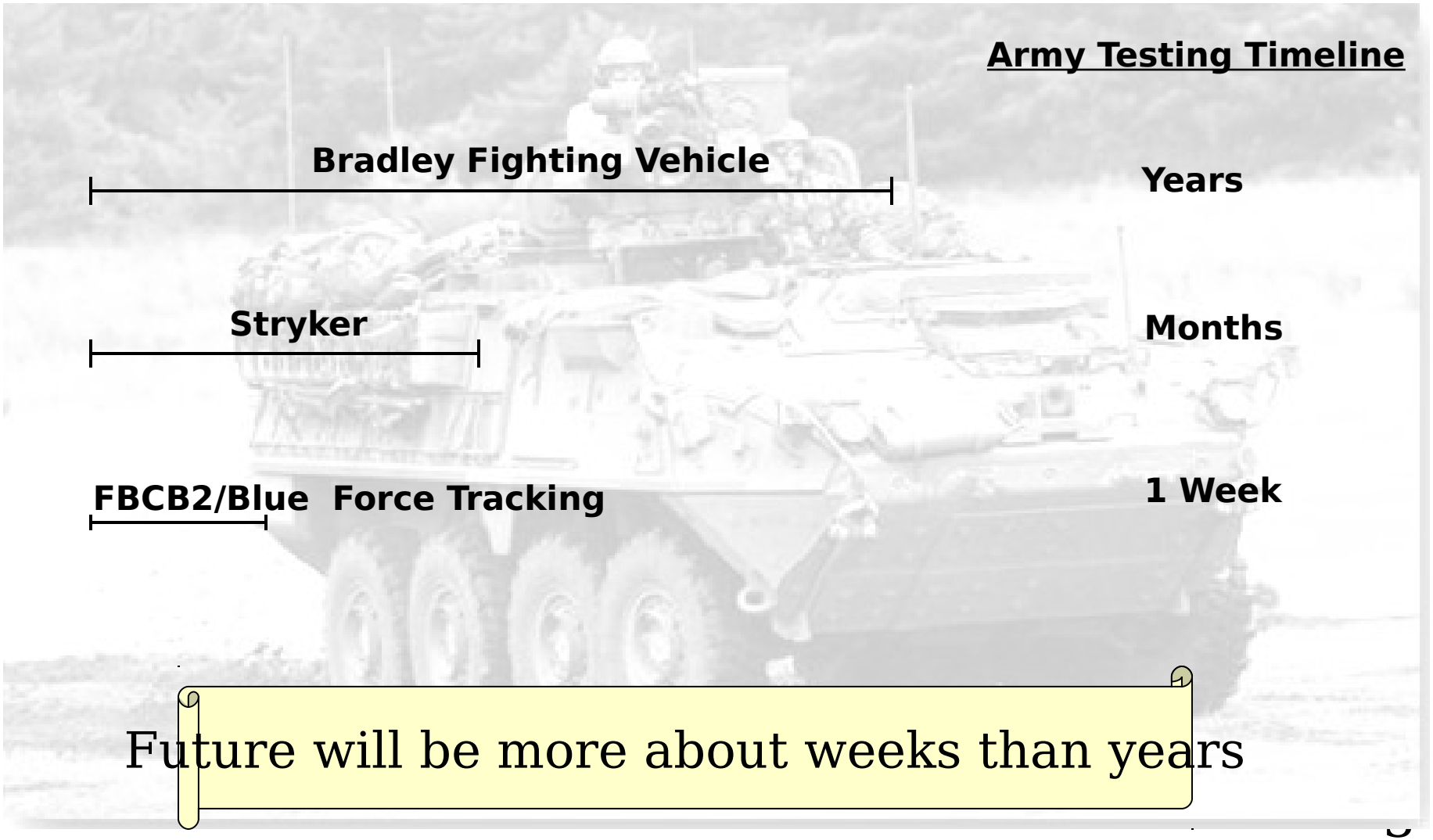
Key Factors Driving DT/OT Integration

- Technology spirals into current systems
- Time not available for sequential DT then OT
- Troops are deployed; hard to come by for OT
- Distributed test capability – online now

AND

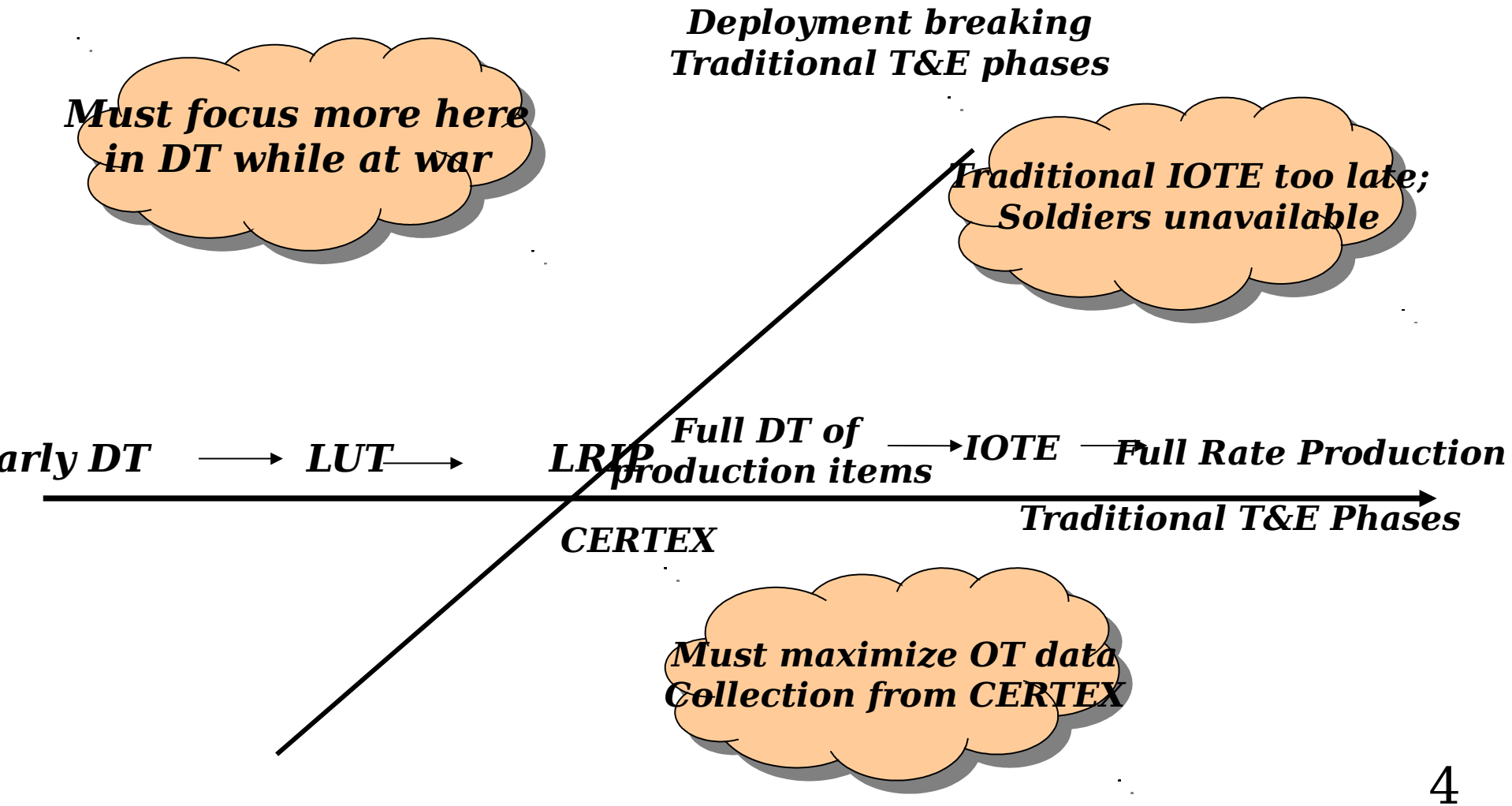
- The Urgency of Fielding New Systems to an Army at War!

Why DT/OT Integration?



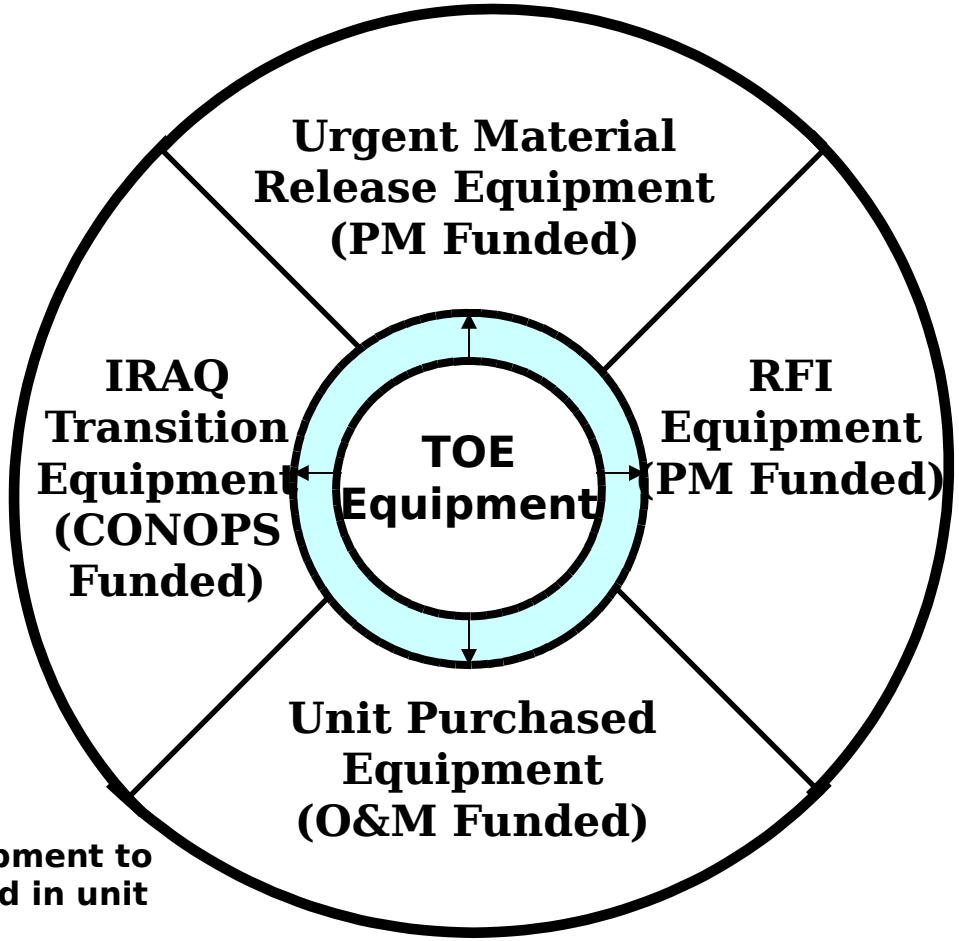
Future will be more about weeks than years

ATEC T&E While at War Planning for FCS



Deployed Unit Equipment Model

Post Deployment Model


Urgent Material Release Equipment (PM Funded)
IRAQ Transition Equipment (CONOPS Funded)
TOE Equipment
RFI Equipment (PM Funded)
Unit Purchased Equipment (O&M Funded)

Desired Equipment to Be maintained in unit

ATEC Operational Assessments (OA)

Purpose is to assess system performance in an operational environment.

OA I

- Automated Battlefield Control System (ABCS) – **Completed** to support the decision for good enough

Stryker OA in progress

OA II

- Shortstop Electronic Protection System (SEPS) / WARLOCK
- Lightweight Counter-Mortar Radar
- UAVS – Raven, Shadow, Hunter, & Predator
- …….

Insights gained from these assessments support program decisions

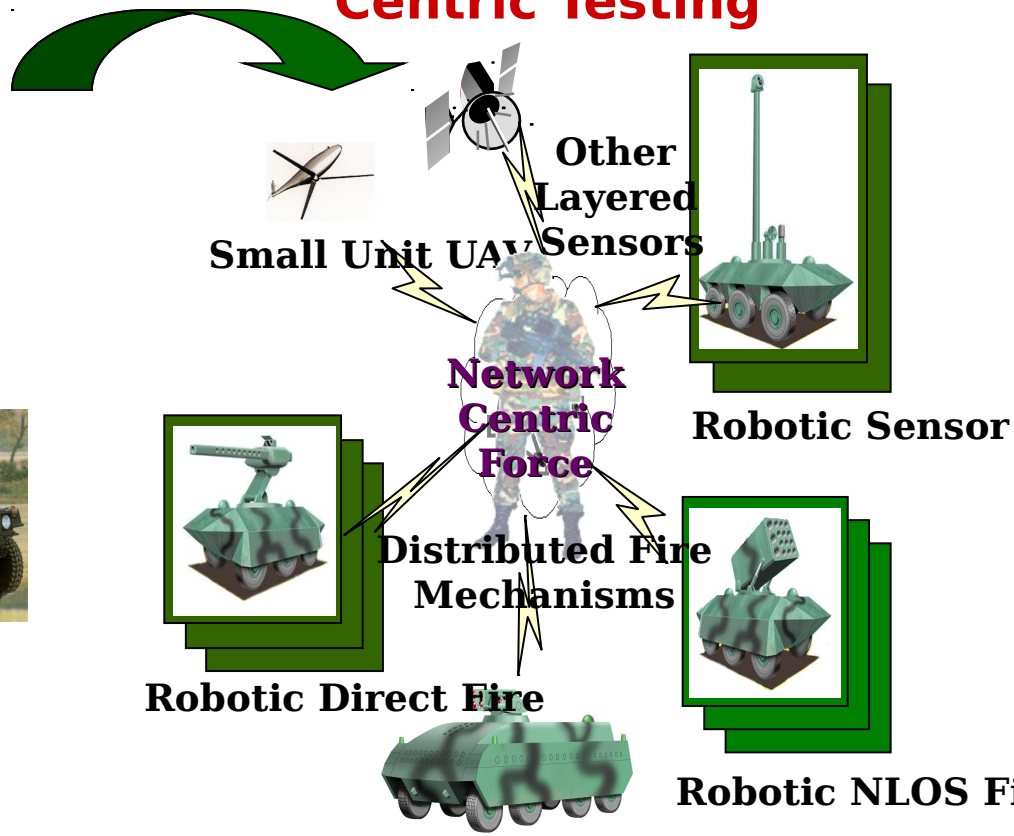
System of Systems Testing

From This...

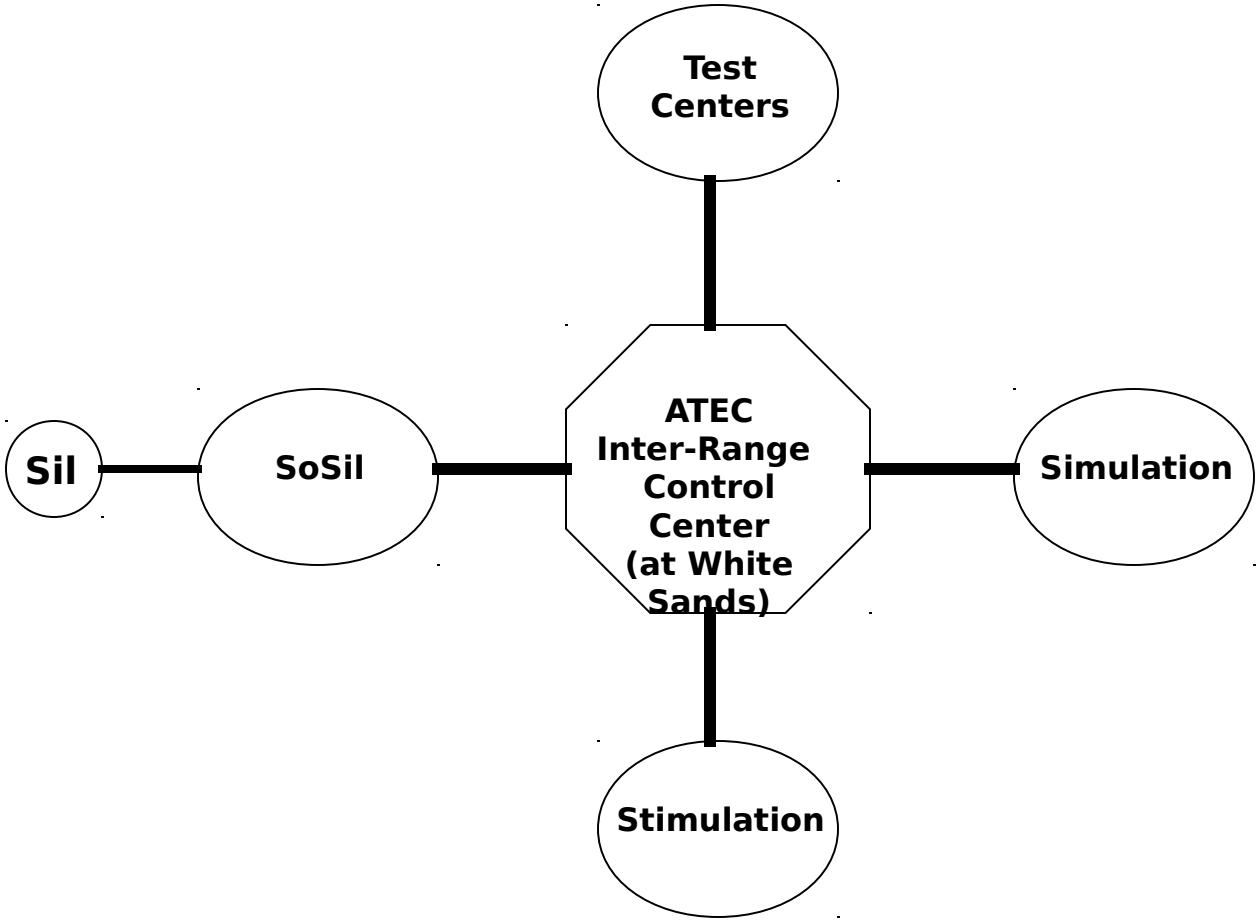
Platform Centric Testing

To This...

Network Centric Testing



Army Distributed Testing Strategy
Concept for FCS DT&E
Linking Live, Virtual and Constructive



Inter Range Control Center (IRCC)

Single Point of Entry to Full Spectrum of DTC Synthetic Environments

Joint Distributed DT/OT Issues

- Defense Research and Engineering Network (DREN) and Defense Information System Network-Leading Edge Services (DISN-LES) Merge
- Protocols/Interfaces
  - Test and Training Enabling Architecture (TENA)
    - Funded by OSD CTEIP; All Services participating
    - Need to complete the effort
    - Need range-wide buy-in
  - Common Object Request Broker Architecture
    - Mandated for use in JTRS, other systems
    - Widely used in industry
  - Real-time test requirements present challenges for both
- Fidelity of Simulations
- Classified Networks
- Joint Test Execution
  - Funding Strategy
  - Prioritization
  - Procedures
  - Results

Future Demands that Test Interoperability as important as Joint Operations Interoperability

Summary

- ATEC was formed to optimize DT, OT and Evaluation effectiveness for the Army
- Three years of combined T&E planning now paying dividends in supporting an Army at war.
- Internal ATEC processes changing – continued DT and OT partnerships in test planning and conduct, as well as technology and instrumentation development are our path for the future